

(2) Have an oxygen analyzer with a sensor or sampling connection fitted within 3 meters (9.74 ft.) of the vessel vapor connection which:

(i) Activates an audible and visible alarm at a location on the service vessel where cargo transfer is controlled when the oxygen content in the vapor collection system exceeds 8 percent by volume;

(ii) Has an oxygen concentration indicator located on the service vessel where the cargo transfer is controlled; and

(iii) Has a connection for injecting a span gas of known concentration for calibration and testing of the oxygen analyzer.

(b) If the cargo tanks on a vessel discharging cargo are not inerted, the vapor collection line on the service vessel must be fitted with a detonation arrester that meets the requirements of 33 CFR 154.822(a) located within 3 meters (9.74 ft.) of the vessel vapor connection.

(c) An electrical insulating flange or one length of non-conductive hose must be provided between the vessel vapor connection on the service vessel and the vapor connection on the vessel being lightered or topped-off.

§ 39.40-5 Operational requirements for vapor balancing—TB/ALL.

(a) During a lightering or topping-off operation each cargo tank being loaded must be connected by the vapor collection system to a cargo tank which is being discharged.

(b) If the cargo tanks on both the vessel discharging cargo and the vessel receiving cargo are inerted, the following requirements must be met:

(1) Each tank on a vessel receiving cargo which is connected to the vapor collection system must be tested prior to cargo transfer to ensure that the oxygen content in the vapor space does not exceed 8 percent by volume. The oxygen content of each tank must be measured at a point one meter (3.28 feet) below the tanktop and at a point equal to one-half of the ullage. Where tanks have partial bulkheads, the oxy-

gen content of each area of that tank formed by each partial bulkhead must be measured at a point one meter (3.28 feet) below the tanktop and at a point equal to one-half of the ullage;

(2) The oxygen analyzer required by § 39.40-3(a) must be tested for proper operation prior to the start of each transfer operation;

(3) The oxygen content of vapors being transferred must be continuously monitored during the transfer operation;

(4) Cargo transfer must be terminated if the oxygen content exceeds 8 percent by volume and must not be restarted until the oxygen content in the tanks of the vessel receiving cargo is reduced to 8 percent by volume or less; and

(5) The vapor transfer hose must be purged of air and inerted prior to starting vapor transfer.

(c) The isolation valve, required by § 39.20-1(c) of this part, located on the service vessel must not be opened until the pressure in the vapor collection system on the vessel receiving cargo exceeds the pressure in the vapor collection system on the vessel discharging cargo.

(d) The cargo transfer rate must be controlled from the vessel discharging cargo, and must not exceed the maximum allowable transfer rate for the vessel receiving cargo.

(e) The pressure in the vapor space of any cargo tank connected to the vapor collection line on either the vessel receiving cargo or the vessel discharging cargo must not exceed 80 percent of the lowest setting of any pressure relief valve during ballasting or cargo transfer.

(f) All impressed current cathodic protection systems must be deenergized during cargo transfer operations.

(g) Tank washing is prohibited unless the cargo tanks on both the vessel discharging cargo and the vessel receiving cargo are inerted or the tank is isolated from the vapor collection line.

[CGD 88-102, 55 FR 25446, June 21, 1990; 55 FR 39270, Sept. 26, 1990]

INDEX

SUBCHAPTER D—TANK VESSELS

EDITORIAL NOTE: This listing is provided for informational purposes only. It is compiled and kept current by the Coast Guard, Department of Transportation.

Part, subpart, or section

A

Accident or casualty report	Subpart 35.15
Accommodations for crew.....	Subpart 32.40
Application	32.40-1
Construction	32.40-15
Heating and cooling	32.40-50
Hospital space	32.40-35
Insect screens	32.40-55
Location of crew spaces	32.40-10
Messrooms.....	32.40-30
On tankships constructed before June 15, 1987	32.40-65
On tankships of less than 100 gross tons and manned tank barges.....	32.40-60
Other spaces	32.40-40
Sleeping Accommodations	32.40-20
Washrooms and toilet rooms.....	32.40-25
Aids to Navigation:	
Charts or information regarding	35.20-1
Coast pilots.....	35.20-1
Current tables.....	35.20-1
Light lists	35.20-1
Nautical publications	35.20-1
Notice to Mariners.....	35.20-1
Sailing directions	35.20-1
Tide tables	35.20-1
Air compressor.....	32.35-15, 35.35-85
Alarm bells	32.25
Marking required	35.40-5
Switches, markings of	35.40-1
Alarm systems Subpart	32.25
Alcohol or drugs, used by crew.....	35.05-25
Alterations and repairs, regulations governing.....	30.01-10, 31.10-25
American Bureau of Shipping.....	31.10-1
Annual inspection:	
Application for:	31.01-15
Fire extinguishers	31.10-18
Anode installations, sacrificial	35.01-25
Appeal right of	30.20-50
Application for inspection.....	31.01-15, 31.1-20
Application, electrical installations Subpart	32.45
Application of regulations:	
Governing alterations and repairs	30.01-10
Vessels on an international voyage	30.01-6
Approved, definition	30.10-3

46 CFR Ch. I (10-1-98 Edition)

Arresters, flame.....	30.10-23, 32.20-10
Assignment of functions.....	31.01-10
Auto pilot.....	35.20-45
Auxiliary machinery:	
Design.....	32.35-1
Construction.....	32.35-1
Installation of internal combustion engines	32.35-5
Axes, fire	34.05-20, 34.60

B

Ballasting.....	31.10-32
Bell, alarm Subpart	32.25
Bell signals	32.30-5
Bilge injection valves.....	31.10-20
Bilge systems Subpart	32.52
Bills of lading required.....	35.01-10
Boilerroom, fire extinguishing systems for	34.05-5
Boilers:	
Accident report by chief engineer.....	35.25-5
Examination by engineer.....	35.25-1
Safety rules for fires.....	35.30-5
Breeches buoy, poster containing instruction regarding use of.....	Subpart 35.12
Breathing apparatus, fresh air.....	35.30-20, 35.40-20
Butterworth plates, safety rules regarding.....	35.30-10

C

Carbon dioxide extinguishing systems:	
Alarms.....	34.15-30
Amount of carbon dioxide required	34.15-5
Application	34.15-1
Controls.....	34.15-10
Discharge outlets	34.15-25
Dry cargo spaces.....	34.15-5
Enclosed ventilation systems for rotating electrical propulsion equipment.....	34.15-5
Enclosure openings.....	34.15-35
Installation contracted for prior to January 1, 1962.....	34.15-90
Machinery spaces pumprooms paint lockers and similar spaces	34.15-5
Piping.....	34.15-15
Pressure relief	34.15-40
Quantity, pipe sizes, and discharge rates.....	34.15-5
Storage.....	34.15-20
Total available supply	34.15-5
Cargo definition.....	30.10-5
Cargo discharge.....	32.5-3
Cargoes elevated temperatures.....	Part 36
Cargoes regulated.....	Subpart 30.25
Cargo gear certificates or registers	31.10-16, Subpart 31.37
Cargo gear inspection.....	31.10-16, 31.37
Cargo handling:	
Equipment maintenance	35.35-70
General	35.35
Liquefied petroleum gases	Subpart 38.15
Loading information.....	35.35
Safety requirements	35.30
Unmanned tank barges	35.35-1

Subchapter D Index

Cargo handling room, definitions	30.10-6
Cargo hose	35.35-15, 35.35-70, 38.15-5
Cargo piping	40.15-1, 38.10-10
Cargo pumps.....	Subpart 32.50
Cargo pump relief valves	36.10-1
Cargo pump, testing of.....	35.35-70
Cargo tank hatches, ullage holes and Butterworth plates, safety rules regarding	35.30-10
Cargo tanks:	
Construction and testing of.....	32.60-40, 32.65-40, 32.70-25, 32.75-10
Design and installation of.....	38.05
Electric bonding and grounding of	32.75-15
Filling densities.....	38.15-1
Fire extinguishing systems for	34.05-5
Hydrostatic test of.....	38.25-1
Installation for carrying liquids at elevated temperatures	36.05-1
Independent	32.60-30, 32.65-30, 32.70-25, 32.75-10
Lagging	38.05-20
Liquid level gauging devices.....	38.10-20, 32.20-20
Liquefied petroleum gases	Part 38
Marking of	38.05-5
Periodic test	38.25-1
Piping.....	38.10-10
Refrigeration system used with	38.05-25
Removal from service	38.25-5
Venting of	Subpart 32.55, 38.20-1, 38.20-5
Cargo transfer:	
Approval of.....	35.35-25
Conditions affecting.....	35.35-40
Connecting of cargo hose.....	35.35-15
Declaration of inspection.....	35.35-30
Duties of senior deck officer.....	35.35-35
Electric bonding	35.35-5
Filling densities.....	38.15-1
Handling of packaged goods, etc	35.35-55
Inspection prior to	35.35-2 0
Liquefied flammable gases	38.15-5
Maintenance of equipment	35.35-70
Men on duty	35.35-1
Tank barges.....	35.35-60
Termination of	35.35-50
Towing vessels furnishing steam, air or electricity.....	35.35-45
Vapor control systems.....	Part 39
Vessels coming alongside during	35.35-42
Carriage of person other than crew	35.01-15
Casualty or accident report Subpart	35.15
Certificate of class.....	31.10-5
Certificate of inspection:	
Application for.....	31.01-15, 31.01-20
Cargoes of elevated temperatures, carriage of.....	36.01-5
Delivery of	31.05-1
Endorsed for liquefied flammable gas.....	38.01-5
Indication of water traveled on	31.20-1
Ocean or unlimited coastwise vessels on inland and Great Lakes Routes-TB/OC	30.01-7
Posting of	31.05-5
Terms, endorsements	31.05-15
Certificates regarding shipboard cargo gear	31.10-16, 31.37

46 CFR Ch. I (10-1-98 Edition)

Certificates under International Convention for Safety of Life at Sea.....	31.10-16, 31.37
1960 American Bureau of Shipping	31.40-45
Application	31.40-1
Cargo Ship Safety Construction Certificate.....	31.40-5
Cargo Ship Safety Equipment Certificate.....	31.40-10
Cargo Ship Safety Radiotelegraphy Certificate.....	31.40-15
Cargo Ship Safety Radiotelephony Certificate.....	31.40-20
Duration of Convention Certificate.....	31.40-40
Exemption Certificate.....	31.40-25
Posting of Convention Certificates	31.40-35
Certified crewmembers	31.15-1
Certified definition	30.10-7
Charts of navigable waters required	35.20-1
Chief Engineer:	
Repairs of boilers and unfired pressure vessels and reports or accidents	35.25-5
Class, certificate of	31.10-5
Classification requirements, definition	30.10-9
CO ₂ fire apparatus, marking required	35.40-10
Coast Guard District Commander	30.10-19
Coast pilots.....	35.20-1
Coastwise, definition	30.10-11
Cofferdam:	
Definition of	30.10-13
Location of	32.60-10, 32.65-15, 32.70-10
Requirements of	32.70-10
Venting of	32.55-45
Combustible gas indicator.....	35.30-15
Combustible liquids, definition	30.10-15
Commodant, definition	30.10-17
Commodities regulated	Subpart 30.25
Communication, interior system	Subpart 32.30
Construction and testing of cargo tanks and bulkheads on tank vessels.....	32.65-40, 32.60-40, 32.75-10
Construction of tank barges of materials other than steel or iron, requirements.....	32.80-1
Construction of tank vessels:	
Cargo spaces segregated from cargo tanks.....	32.57-10, 32.60
Ceilings	32.57-1
Deck	32.57-10
Enclosed spaces	32.60-10
General cargo spaces	32.60-15
Hatch covers	32.57-10
Hull requirements	32.60, 32.65, 32.70, 32.75
Lamp Lockers	32.57-10
Living quarters	32.60-25, 32.65-25
Location of cargo tank spaces	32.60-10
Location of independent tanks	32.60-30
Machinery	32.35-1
Paint lockers	32.57-10
Requirements for scantlings, material and workmanship	32.60-1, 32.65-1, 32.70-5, 32.75-5
Segregation of cargo	32.60-10
Stowage spaces	32.60-10
Subdivision of cargo space	32.60-5, 32.65-10
Testing of cargo tanks and bulkheads	32.60-40, 32.65-40, 32.70-25, 32.75-10

Subchapter D Index

Construction of vessels for liquefied gases	38.05-1
Construction of wood hull tank vessels:	
Application of regulations	32.75-1
Electric bonding and grounding of cargo tanks	32.75-15
Hold spaces.....	32.75-20
Independent cargo tanks	32.75-10
Convention certificates.....	Subpart 31.40
Conversion of vessels to tank vessels	31.10-10
Crew:	
Certified members of	31.15-1
Illness of.....	35.05-25
Licensed officers.....	31.15-1
Physical condition of	35.05-20
Required for cargo handling	35.35-1
Crew accommodations:	
Inspection of.....	31.10-45
Requirements for	Subpart 32.40
Sanitary condition of.....	35.01-5
Current tables.....	35.20-1

D

Deck foam system.....	Subpart 34.20
Declaration of inspection prior to bulk cargo transfer	35.35-30
Definition of term.....	Subpart 30.10
Delivery of certificate of inspection	31.05-1
Design:	
Cargo tanks	38.05-2
Main and auxiliary machinery	32.35-1
Vapor control system.....	Subpart 39.20
Devices, spark producing.....	35.30-35
Display of Plans.....	35.10-3
Draft marks	32.05-1, 35.20-5
Drills:	
Boat	35.10-5
Fire	35.10-5
Line throwing appliance	35.10-1
Drydock or hauling out	31.10-20

E

Effective date of regulation	30.01-15
Electric bonding and grounding	32.75-15, 35.35-5
Electrical installations.....	31.35, 32.45
Elevated temperature cargoes:	
Cargo pump relief valves	36.10-1
Certificate of inspection	36.01-5
Flame Screens, vents and ventilations.....	36.20-1
Installation of cargo tanks.....	36.05-1
Lagged tanks, periodic inspections.....	36.30-1
Protection of personnel	36.05-10
Ventilation of pumproom	36.20-5
Emergency:	
Authority of senior officer	35.35-75
Breathing equipment, marking	35.40-20
Lighting and power systems.....	35.10-15
Outfit.....	35.30-20
Repairs to firefighting equipment.....	35.01-35

46 CFR Ch. I (10-1-98 Edition)

Signals.....	35.10-5
Training.....	35.10-1
Enclosed ventilating system, fire extinguishing system	34.05-5
Enforcement	30.20-1
Engineering, electrical	31.35, 32.45
Engineering, marine Subpart	31.30
Equipment:	
Cargo handling.....	Subpart 32.50
Emergency	35.30-20
Fire and emergency, marking	Subpart 35.40, 35.40-40
Installed but not required.....	34.01-5
Portable electrical	35.30-30
Previously approved.....	30.01-15
Equipment installations Subpart	32.20
Equipment installations on vessels during World War II	32.20-1
Equipment, navigation Subpart	32.15
Equivalents.....	30.15-1
Escape, means of.....	32.02-1
Examination of tail shaft.....	61.15-15
Examination of sea chests, sea valves, sea strainers, and bilge injection valves	31.10-20
Exemption certificate	31.40-25
Explosives, transportation of.....	35.30-25

F

Fire axes.....	34.05-20, 34.60
Location of	34.60-10
Number required.....	34.60-5
Fire drills.....	35.10-5
Fire extinguishers, portable and semiportable:	
Application	34.50-1
Classification	34.50-5
Location	34.50-10
Spare charges	34.50-15
Vessels contracted for prior to January 1, 1962	34.50-90
Fire extinguishing deck foam system:	
Application	34.20-1
Area protected	34.20-5
Cargo area definitions.....	34.20-3
Controls.....	34.20-10
Discharge outlets	34.20-20
Installations contracted for prior to January 1, 1970	34.20-90
Marking.....	35.40-10
Piping.....	34.20-15
Quantity of foam required	34.20-5
Rate of application	34.20-5
Separate supply of foam-producing material	34.20-5
Supply of foam producing material	34.20-5
Water supply.....	34.20-5
Fire extinguishing fixed foam systems:	
Additional protection required	34.17-25
Application	34.17-1
Area protected	34.17-5
Controls.....	34.17-10
Discharge outlets	34.17-20
Installations contracted for prior to January 1, 1962	34.17-90
Piping.....	34.17-15

Subchapter D Index

Rate of Application.....	34.17-5
Separate supply of foam-producing material	34.17-5
Supply of foam producing material	34.17-5
Water supply for required pumps.....	34.17-5
Fire extinguishing systems:	
Boilerrooms	34.05-5
Carbon dioxide	34.15
Cargo tanks	34.05-5
Dry cargo compartments	34.05-5
Enclosed ventilating systems	34.05-5
Foam, deck.....	Subpart 34.20
Foam, fixed	Subpart 34.17
Installations contracted for prior to January 1, 1962	34.10-90
Lamp, paint lockers and similar places.....	34.05-5
Machinery spaces.....	34.05-5
Marking.....	35.40-10
Piping.....	34.10-15
Pumprooms.....	34.05-5
Fire extinguishing system, steam smothering:	
Application	34.13-1
Installations contracted for prior to January 1, 1962	34.17-90
Firefighting equipment:	
Application	34.01-1
Fire axes.....	34.05-20, 34.60
Fire main system.....	34.05-1
Hose.....	34.10-10
Nozzles.....	35.40-10
Hydrants.....	35.40-15
Installed but not required.....	34.01-5
Portable, vessel's name on	35.40-40
Protection for unusual arrangements or special products	34.01-10
Testing and inspection.....	31.10-18, 31.10-19
Fire main system:	
Application	34.10-1
Fire pumps.....	34.10-5
Fire station hydrants hose and nozzles	34.10-10
Fire, matches and smoking safety rules.....	35.30-5
Fire protection, structural, for tank vessels contracted for on or after	
January 1, 1963	Subpart 32.57
Fire protection, structural for ships with a keel laying date on or after	
January 1, 1975	Subpart 32.56
Fire station	34.10-10
Fitting and piping for liquefied petroleum gases	38.10-10
Fittings, cargo	Subpart 32.50
Flame arresters	30.10-23, 32.20-10
Flame screen	30.10-25, 36.20-1
Flammable liquid, definition	30.10-22
Flammable liquid and gas fuels as ships' stores.....	35.30-40
Flammable or inflammable, definition.....	30.10.21
Flashpoint, definition	30.10-27
Foam hose/monitor stations.....	35.40-17
Fresh air breathing apparatus	35.30-20, 35.40-20
Fuel oil, requirements.....	35.25-10
Fuels, flammable liquid and gas.....	35.30-40
Functions, assignment of.....	30.01-3

46 CFR Ch. I (10-1-98 Edition)

G

Galley fires, safety rules.....	35.30-5
Gangway signs	35.30-1
Gas chemist certified by American Bureau of Shipping	35.01-1
Gas free, definition.....	30.10-29
Gauge, liquid level.....	32.20-20, 38.10-20, 39.20-3
Gear, shipboard cargo, certificates or registers	31.10-16, 31.37
General alarm switch, marking of.....	35.40-1
General alarm systems:	
Alarm bells for tankships constructed on or after September 15, 1943	32-25-1
Alarm bells for tankships constructed prior to September 15, 1943	32.25
Alarm bells for manned barges	32.25
General rules and regulations	30.10-31
Grade D, combustible liquid.....	30.10-15
Grade E, combustible liquid.....	30.10-15
Great Lakes.....	30.10-33

H

Hauling out or drydocking	31.10-20
Headquarters	30.10-35
Hose, cargo	32.50-30
Hospital accommodations.....	32.40-1
Hull and cargo tank requirements:	
Alternative arrangements	32.63-8
Application	32.63-1
Barge hull classifications	32.63-5
Cargo tanks and supports.....	32.63-25
Hull structure	32.63-20
Rakes and coamings.....	32.63-10
Hull requirements.....	32.60, 32.63, 32.65, 32.70, 32.75, 32.80
Hydrostatic test for cargo tanks	38.25-1

I

Independent cargo tanks	32.60-30, 32.60-35, 32.65-30, 32.70-25 32.75-10
Inert gas system.....	Subpart 32.53
Inspection:	
Alterations and repairs	31.10-25
Bilges	31.10-50
Certificate of.....	Subpart 31.05
Conversion of a vessel to a tank vessel, application for.....	31.01-20
Crew accommodations.....	31.10-45
During trial trip	31.10-40
General requirements	Subpart 31.01
Initial, scope of.....	31.01-5
Lagged tanks	36.30-1
New tank vessel.....	31.01-20, 31.10-5
Plans and specifications	31.10-5
Recognized classification society	31.10-1
Required	31.01-1
Required before making repairs.....	35.01-1
Required, liquefied, petroleum gas tanks	38.25-1
Required on new tank vessels	31.01-1
Safety valves.....	38.25-10
Two years.....	31.10-15, 31.10-17
Inspection and certification of cargo gear	31.10-16

Subchapter D Index

Inspection and test, periodic, of independent cargo tanks	38.25
Inspection of cargo gear:	
Additions to gear.....	31.37-60
Advance notice that cargo gear testing is desired	31.37-80
Alterations, renewals, or repairs of cargo gear	31.37-65
Annealing	31.37-55
Cargo gear plans.....	31.37-15
Certification.....	31.10-16
Definitions of terms.....	31.37-3
Dismantling or disassembling	31.37-3
Factors of safety	31.37-25
Loose gear certificates and tests.....	31.37-30
Marking of booms and cranes.....	31.37-45
Proof test of cargo gear as a unit.....	31.37-40
Records.....	31.37-75
Responsibility for conducting required tests and examinations	31.37-85
Responsibility of ship's officer for inspection of cargo gear	31.37-70
Safe working load	31.37-3
Tests and examinations of shipboard cargo gear	31.37-5
Thorough examination	31.37-3
Ton.....	31.37-3
When made.....	31.37-1
Installation of cargo tanks.....	38.05-10
Installation of internal combustion engines	32.35-5
Installations made during the Unlimited National Emergency	32.20-1
Internal combustion installations, fire extinguishing systems.....	34.05-5
International voyage	30.01-6
Interior communications system:	
Bell signals between engineroom and pilothouse	32.30-5
Inspection of	32.30
Telegraph systems	32.30
Telephone equipment.....	32.30-1
Voice tubes	32.30-1
Issuance of certificates of inspection	31.05-1

L

Lagging for independent cargo tanks.....	38.05-20
Lakes, bays and sounds	30.10-41
Lamp and paintrooms:	
Fire extinguishing system for	34.05-5
Fireproofing of	32.85-1
Licensed officers required.....	31.15-1
Lifeboat drills.....	35.10-5
Lifesaving Appliances and Approaches	Subpart 31.36
Actions to be required.....	35.07-10
Certificate of inspection regulation	31.05-1
Drills.....	35.10-1
Inspections required	31.01-1
Musters	35.10-5
Lights, flashing the ray of	35.20-30
Light List	35.20-1
Liquid, flammable	30.10-22
Liquid level gauging devices	32.20-20, 38.10-1, 38.10-20 39.20-3
Liquefied flammable gas	30.10-39
Cargo hose	38.15-5
Cargo piping	38.10-10
Certificate of inspection	38.01-5

46 CFR Ch. I (10-1-98 Edition)

Design and construction of cargo tanks	38.05-2
Design and construction of nonpressure vessel type cargo tanks.....	38.05-4
Design and construction of pressure vessel type cargo tanks.....	38.05-3
Design and construction of vessels, general	38.05-1
Electrical installations	38.15-15
Filling and discharge pipes.....	38.10-5
Filling of tanks.....	38.15-1
Installation of cargo tanks.....	38.05-10
Insulation.....	38.05-20
Leak detection systems.....	38.15-10
Liquid level gauging devices	38.10-20
Markings.....	38.05-5
Refrigerated systems.....	38.05-25
Remote shutdowns	38.15-20
Removal of defective tanks	38.25-5
Safety relief valves	38.25-10
Safety relief valves for pressure vessel type tanks	38.10-15
Scope of regulations	38.01-1
Tests and inspections.....	38.25-1
Transportation of	Part 38
Transportation of portable cylinders or portable tanks containing or having previously contained liquefied flammable gases in dry cargo spaces.....	38.01-2
Valves, fittings, and accessories.....	38.10-1
Vapor control system	Part 39
Ventilation.....	38.20-10
Venting.....	38.20-1, 38.20-5
Living quarters	32.60-25, 32.65-25
Load lines Subpart	31.25
Loading information	31.10-32
Logbook entries:	
Actions required to be logged.....	35.07-10
Application	35.07-1
Draft of tank ship	35.20-5
Fire and lifeboat drills.....	35.10-5
Fuel oil requirements.....	35.25-10
Logbooks and records	35.07-5
Steering gear tests	35.20-10

M

Machinery spaces, fire extinguishing systems for	34.05-5
Machinery, main and auxiliary:	
Accident report by chief engineer.....	35.25-5
Air compressors.....	32.35-15
Construction	32.35-1
Design.....	32.35-1
Examination by engineer.....	32.25-1
Installation of internal combustion engines	32.35-5
Steering apparatus.....	32.35-10
Maneuvering characteristics, display of	35.20-40
Manning:	
Tank vessels	31.15, 35.35-1
Marine engineering and material specifications.....	Subpart 31.30
Marine inspector, authority of.....	31.01-10
Markings:	
Booms and cranes.....	31.37-45
CO ₂ alarm	35.40-7

Subchapter D Index

Draft marks	32.05-1
Emergency breathing apparatus	35.40-20
Emergency lights.....	35.40-6
Fire and emergency equipment.....	Subpart 35.40
Firehose stations.....	35.40-15
General alarm bell	35.40-5
General alarm bell switch.....	35.40-1
Lifesaving equipment.....	35.40-40
Portable fire extinguishers.	35.40-25
Steam, foam or CO ₂ apparatus	35.40-10
Steering station	35.40-35
Tanks for liquefied flammable gas, marking of.....	38.05-5
Vapor control system piping.....	39.20-1
Vessel's name.....	32.05-10, 32.05-15
Vessel's name on equipment.....	32.05-5
Master:	
Casualty or accident report	35.15-1
Licensed officer.....	35.05-1
Station bills and muster list	35.10-1, 35.10-5
Master's and officer's responsibility	35.20-20
Matches:	
Use of.....	35.30-5
Materials specification	Subpart 31.30
Material, scantlings and workmanship.....	32.60-1, 32.65-1
Means of escape	32.02-1
Muster list	35.10-1, 35.10-5

N

Nautical publications	35.20-1
Navigation, use of Auto Pilot.....	35.20-45
Navigation equipment:	
Anchors for seagoing barges.....	32.15-15
Magnetic compass and gyro compass	32.15-35
Radar.....	32.15-30
Sounding machines	32.15-10
Whistles	32.15-5
New tank vessels, inspection of	31.10-5
New tank vessels, plans for inspection of	31.10-5(a)
Notice to mariners.....	35.20-1

O

Ocean, definition	30.10-45
Officer in Charge, Marine Inspection	30.10-47
Officers required on tank vessels	Subpart 35.05
Open hopper type barges	35.01-45
Overfill protection, liquid, tank barge	39.20-9
Overfill protection, liquid, tank ship.....	39.20-7
Overpressure and vacuum protection, vapor, tank barge and ship.....	39.20-11
Oxygen breathing apparatus, marking of.....	35.40-20

P

Paintrooms	Subparts 32.85, 34.05-05
Penalties for violations of regulations.....	30.20-10
Period covered by certificate of inspection.....	31.05-10
Permit definition	30.10-49

46 CFR Ch. I (10-1-98 Edition)

Q_i

Quarters, living..... 32.60-25, 32.65-25

R

Radar.....	32.15-30
Radio room warning signs	35.30-1
Recognized classification society, definition.....	30.10-57
Refrigerated systems.....	38.05-25
Registers regarding shipboard cargo gear.....	31.10-16, Subpart 31-37
Regulations:	
Application of	30.01-5
Authority vested in Commandant	30.01-1
Effective date	30.01-15
Explanation of vessel description	30.01-5
Governing alterations and repairs	30.01-10
Liquefied flammable gas.....	Part 38
Scope of	36.01-1
Vapor control system	Part 39
Reid vapor pressure, definition	30.10-59
Reinspection.....	31.10-17
Relief valves:	
Cargo pump.....	36.10-1
Cargo pump, testing of	35.35-70
Cargo tanks	38.10-15
Repairs:	

Subchapter D Index

Application of regulations	30.01–10
Firefighting equipment	35.01–35
Inspection before making	35.01–1
Involving hot work	35.01–1
Permit to proceed to another port	31.10–35
Reports of engineers	35.25–5
Right of appeal	30.20–50
Rivers, definition	30.10–61
Rudder:	
Indicators	35.40–35

S

Safety requirements:	
Means of escape	32.02–1
Safety relief valves for cargo tanks	38.10–15
Safety rules.....	Subpart 35.30
Safety valve seal, breaking of	35.25–20
Sailing directions	35.20–1
Sanitary inspection by master and chief engineer	35.01–5
Scantlings, material and workmanship.....	32.60–1, 32.65–5
Scuppers, closing of.....	35.35–10
Sea chests, examination of	31.10–20
Sea strainers, examination of	31.10–20
Sea valves, closing of	35.35–10
Segregation of spaces containing the emergency source of electric power.....	32.60–45
Shipboard cargo gear, certificates or registers	31.10–16, Subpart 31.37
Shipping papers required.....	35.01–10
Sleeping quarters.....	Subpart 32.40
Smoking safety rules.....	35.30–5
Sounding machines	32.15–10
Spark arrester	30.10–63
Spark producing devices	35.30–35
Spray nozzles.....	34.10–10
Specifications, material.....	Subpart 31.30
Special operating requirements	Subpart 35.01
Special operating requirements for tank barges carrying certain dangerous bulk cargoes.....	35.01–50
Stability requirements.....	31.10–30
Station bills required.....	35.10–1
Steam fire extinguishing systems, marking of	35.40–10
Steam, carrying of excess	35.25–15
Steam smothering system	Subpart 34.13
Steel hull tank vessels	Subparts 32.70, 32.60, 32.63, 32.65
Steering apparatus on tank vessel	32.35–10
Steering gear, instruction for changing	35.40–30
Steering gear test.....	35.20–10
Steering orders, marking	35.40–35
Stowage of package and general cargo.....	35.35–55
Subdivision of cargo spaces.....	32.60–5, 32.65–10

T

Tank barge:	
Carrying bulk cargoes having dangerous characteristics in addition to flammability and combustibility	35.01–50
Definition	30.10–65
Watchman for	35.05–15

46 CFR Ch. I (10-1-98 Edition)

Tankerman, definition	30.10-71
Tankship:	
Definition	30.10-67
Licensed officers and crew	35.05-1
Tanks, portable-interpretive rulings	30.01-20
Tank vessel:	
Definition	30.10-69
Laid up or dismantled	31.01-1
Telegraph equipment, engine order	Subpart 32.30
Telephone equipment, sound powered	Subpart 32.30
Testing of firefighting equipment	31.10-19
Tide tables	35.20-1
Toilet facilities	32.40-25
Towing vessels	31.15-10, 35.35-45
Trial trip inspection	31.10-40

U

Ullage holes, safety rules regarding	35.30-10
--	----------

V

Valves:	
Back pressure check type	38.10-1, 38.10-5
Excess flow	38.10-1, 38.10-5
Liquefied flammable gas	38.10-1, 38.10-5
Pressure vacuum relief	30.10.55, 32.20.5
Relief	35.35-70, 38.10-1, 38.10-10, 38.10-15
Shutoff	38.10-1
Vapor balancing:	
design of equipment	39.40-3
general requirements	39.40-1
operational requirements	39.40-5
Vapor collection system	39.20-1
Vapor control systems	Part 39
Applicability	39.10-1
Cargo gauging system	39.20-3
Definitions	39.10-3
Design and equipment	Subpart 39.20
General requirements	Subpart 39.10
Lightering and topping-off operations with vapor balancing	Subpart 39.40
Operational requirements	39.30-1
Operations	Subpart 39.30
Personnel training	39.10-11
Submission of vapor control system designs	39.10-13
Tank barge and ship vapor overpressure and vacuum protection	39.20-11
Tank barge liquid overfill protection	39.20-9
Tankship high and low vapor pressure protection	39.20-13
Vessel vapor processing units	39.10-9
Ventilation and venting:	
Cargo tanks	Subpart 32.55
Cargo tanks, independent	Subpart 38.20
Cofferdams	Subpart 32.55
Flame screen	36.20-1
Hold spaces	32.55-15
Pumproom	36.20-5
Tank ships with a keel laying date on or after January 1, 1975	32.55-50
Vessels coming alongside	35.35-42

Subchapter D Index

Vessels converted to tank vessels	31.10-10
Vessel's name on equipment	35.40-40
Vessel's name.....	32.05-10, 32.05-15
Voice tubes	32.30-1

W

Warning signals and signs.....	35.30-1
Warning signs	35.30-1
Washing facilities.....	32.40-25
Watchman for tank barge.....	35.05-15
Water spray extinguishing systems, details	Subpart 34-25
Application	34.25-1
Capacity and arrangement	34.25-5
Controls.....	34.25-10
Installations contracted for prior to January 1, 1964	34.25-90
Piping.....	34.25-15
Spray nozzles.....	34.25-20
Water spray systems, marking of.....	35.40-18
Waters, travel permitted on.....	Subpart 31.20
Welding repairs.....	35.01-1
Whistles	32.15-5
Whistle signals for drills.....	35.10-5
Whistling, unnecessary	35.20-35
Wire rope	31.37-35, 31.37-50
Work vests:	
Application of	35.03-1
Approved unicellular plastic foam.....	35.03-5
Shipboard inspection.....	35.03-20
Shipboard stowage	35.03-15
Use.....	35.03-10
Workmanship, material, and scantlings	32.60-1, 32.65-5